

Recombinant Human HtrA2/Omi Protein (His Tag)

Catalog No. PKSH031504

Note: Centrifuge before opening to ensure complete recovery of vial contents.

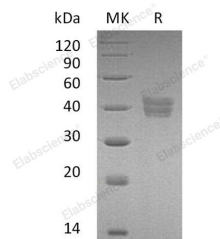
Description

Synonyms	Serine protease HTRA2;mitochondrial;High temperature requirement protein A2;HtrA2;Omi stress-regulated endoprotease;Serine protease 25;Serine proteinase OMI;HTRA2;OMI;PRSS25
Species	Human
Expression Host	E.coli
Sequence	Ala 134-Glu 458
Accession	O43464-1
Calculated Molecular Weight	36.5 kDa
Observed molecular weight	36.5 kDa
Tag	C-His
Bioactivity	Protease activity demonstrated by HtrA2 cleavage of bovine β -casein (Sigma, Catalog # C-6905). Incubation of β -casein at 0.2 mg/mL with Recombinant Human HTRA-2 at 0.02 mg/mL (ratio of 10:1) for 60 minutes at 45°C in 50 mM Tris, pH 8.0, which results in > 95% cleavage of β -casein, as revealed by SDS-PAGE.

Properties

Purity	> 87 % as determined by reducing SDS-PAGE.
Endotoxin	Please contact us for more information.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile 50mM Tris, 0.3M NaCl, 1mM DTT, 20% Glycerol, pH 7.8 Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



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Background

Serine protease HTRA2, also known as high temperature requirement protein A2, Omi stress-regulated endoprotease, Serine protease 25, Serine proteinase OMI and HTRA2, is a single-pass membrane protein which belongs to the peptidase S1B family. HTRA2 contains one PDZ (DHR) domain. HTRA2 is a serine protease that shows proteolytic activity against a non-specific substrate beta-casein. It promotes or induces cell death either by direct binding to and inhibition of BIRC proteins (also called inhibitor of apoptosis proteins, IAPs), leading to an increase in caspase activity, or by a BIRC inhibition-independent, caspase-independent and serine protease activity-dependent mechanism. HTRA2 cleaves THAP5 and promotes its degradation during apoptosis. Isoform 2 of HTRA2 seems to be proteolytically inactive. Defects in HTRA2 are the cause of Parkinson disease type 13 (PARK13) which is a complex neurodegenerative disorder characterized by bradykinesia, resting tremor, muscular rigidity and postural instability, as well as by a clinically significant response to treatment with levodopa.

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